

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
1 April 2004 (01.04.2004)

PCT

(10) International Publication Number  
**WO 2004/027064 A2**

- (51) International Patent Classification<sup>7</sup>: C12N 15/16, (74) Agent: ROBIC; 55, rue St-Jacques, Montréal, Québec  
C07K 14/60, A61K 38/25 H2Y 3X2 (CA).
- (21) International Application Number: PCT/CA2003/001418 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 17 September 2003 (17.09.2003)
- (25) Filing Language: English
- (26) Publication Language: English (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (30) Priority Data: 60/411,340 18 September 2002 (18.09.2002) US
- (71) Applicant (*for all designated States except US*): CENTRE HOSPITALIER DE L'UNIVERSITE DE MONTREAL (CHUM) [CA/CA]; Pavillon Masson, 3840, rue St-Urbain, Bureau 8-107A, Montréal, Québec H2W 1T8 (CA).
- (72) Inventor; and
- (75) Inventor/Applicant (*for US only*): GAUDREAU, Pierrette [CA/CA]; 9123, boul. Rivard, Brossard, Québec J4X 1V5 (CA).
- Published:**  
— *without international search report and to be republished upon receipt of that report*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*



WO 2004/027064 A2

(54) Title: GHRH ANALOGUES

(57) Abstract: The present invention relates to growth hormone-releasing hormone (GHRH) analogues. More particularly, the invention relates to synthetic GHRH analogues of 29 amino acids or more, exhibiting concomitantly an increased resistance to proteolysis and high binding affinity to human GHRH receptor in *in vitro* studies, in comparison with human native GHRH (1-29)NH<sub>2</sub>. The present invention also relates to a pharmaceutical composition comprising any one of said GHRH analogues and to the use of these analogues for specific stimulation of *in vivo* GH release as well as preparation of a drug in the treatment of GH deficiency-related conditions. The present invention also provides for a method for initiating GHRH-induced biological actions in a mammal.